## OIT Accomplishments in 03-05

- Development of new interactive traffic and weather web applications
- Development of a responsive, streamlined process to update the Amtrak Cascades web site
- Development of the first stage of a GIS workbench that supports critical project delivery activities
- Development of a Tacoma Narrows Bridge history web site
- New data marts are getting rave reviews from agency staff who need quick access to information
- Completion of major network capacity improvements, especially for many Maintenance areas. WSDOT now has a fiber back bone for offices in Wenatchee and Spokane.
- Improved email scanning and spam detection.
- WSDOT's computing environment has been free of viruses for the last year.
- Adoption of a new, "web-friendly" model for developing computer systems
- Migration of high visibility project pages to content management service (CMS), enabling staff to update information on web pages more efficiently

- Updated IT Security and IT Disaster Recovery/Business Resumption Plans
- Used .NET to develop reusable program-ming code, which improved IT project delivery and saved agency resources
- Provided Nevada DOT with WSDOT's SNOOPI application
- Acquisition of a new mainframe and Shark (SAN storage device), which will result in significant efficiencies in data storage and processing
- Developed high speed connectivity and a physical site for disaster recovery in partnership with Department of Licensing

In Our Future

- The Linux engine on the new mainframe holds great promise for improved data processing
- Migration to Microsoft XP and Office 2003 should improve computing capabilities for the entire agency

WSDOT IT Budget Compared with Other Government Agencies 2003-2005

Government Average	4%
WSDOT IT	2%
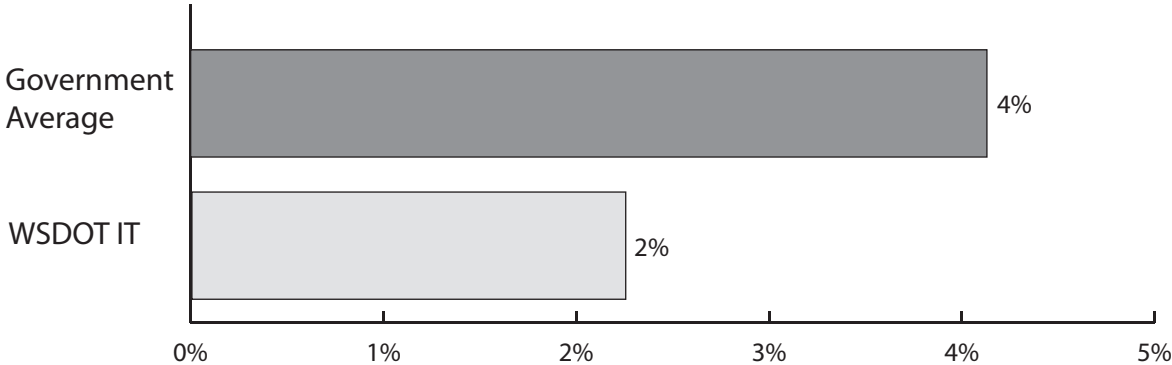
Sources: (1) 2004 IT Financial Benchmarks (v.1), The Meta Group, 3/04. (2) WSDOT Budget 7/17/03.

Notes: (1) WSDOT IT budget of $68.9 million includes appropriated IT (C Program) only. Does not include business unit IT budgets (MATS LAB, TDO, GIS, CAE, Bridge Office) or Intelligent Transportation Systems budgets. (2) WSDOT budget excludes bond proceeds for the Tacoma Narrows Bridge project.

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04-09-0313

Fall 2004

Information Technology
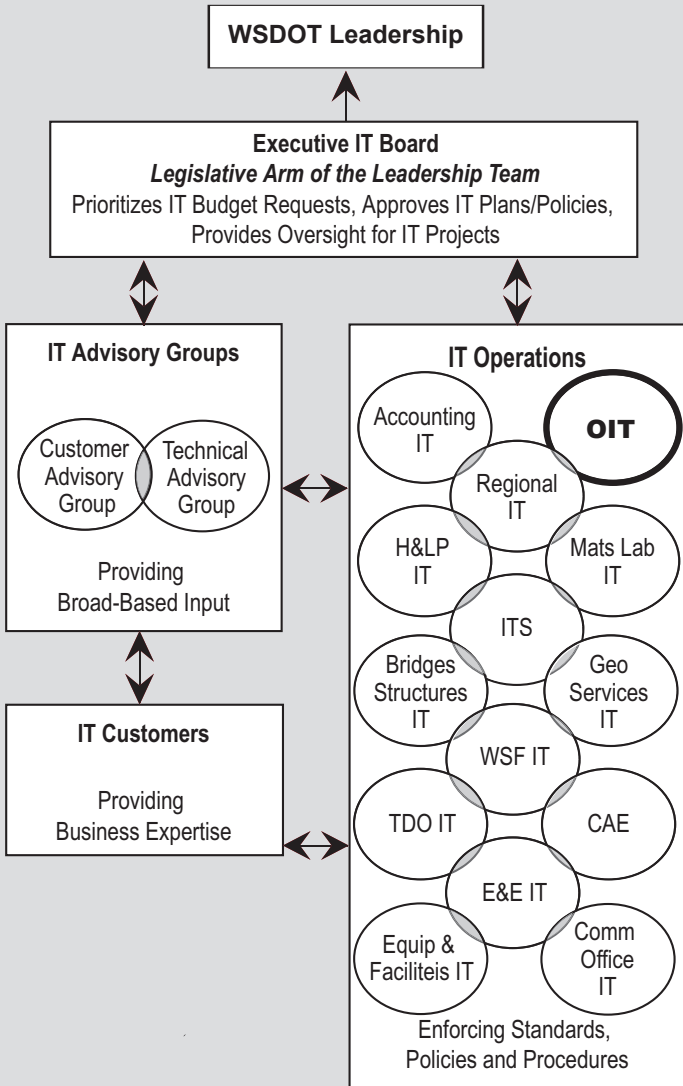
In Support of Transportation

Successful transportation programs are supported by comprehensive and integrated information systems developed and implemented within current technology standards…

Washington State Department of Transportation

WSDOT Information Technology

WSDOT strategically invests in information technology to improve our business processes and to provide the best possible service to our customers.

Centralized Governance Decentralized Service Delivery

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                    WSDOT Leadership
                          ▲
                          │
            Executive IT Board
        Legislative Arm of the Leadership Team
   Prioritizes IT Budget Requests, Approves IT Plans/Policies,
          Provides Oversight for IT Projects
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IT Advisory Groups

Customer Advisory Group / Technical Advisory Group

Providing Broad-Based Input

IT Customers

Providing Business Expertise

IT Operations

Accounting IT — OIT — Regional IT — H&LP IT — Mats Lab IT — ITS — Bridges Structures IT — Geo Services IT — WSF IT — TDO IT — CAE — E&E IT — Equip & Faciliteis IT — Comm Office IT

Enforcing Standards, Policies and Procedures

WSDOT prioritizes key information technology investments and governs its information technology (IT) operations through a formal, centralized organizational structure that involves agency leaders, IT customers, IT professionals and external stakeholders in critical decision-making. This structure has many similarities to Washington State's IT governance structure, with an Executive Board, an operational support organization staffed by IT professionals and a customer board served by area-specific technical subcommittees. Decentralized IT staff serve WSDOT's diverse needs, while agency-wide standard practices ensure efficient IT operations.

WSDOT Office of Information Technology (OIT)

"Services provided by OIT…

Network Services—Includes a statewide network that interconnects nearly every WSDOT building and office, handling millions of transactions per day.

Server Operations—Provides support for over 500 servers statewide–includes support for e-mail, internet/intranet, printing functions and numerous other systems serving over 5,300 internal customers.

Software & Hardware Services—Provides assistance in purchasing Level Playing field software and hardware (over 2,000 requests each biennium) using the competitive bidding process.

Help Desk/Workstation Support—Provides workstation support, office level server support, desk-side consulting and applications support and inventory management. Staff also provides Help desk services, develop hardware/software acquisition plans and deploys software.

Application Planning & Development—Provides application planning and development. Works with customers to define projects, analyzing technical feasibility and costs, and provides project management services.

Application Maintenance—Provides application maintenance, enhancements and production support for approximately 540 mainframe, client/server, micro and web-enabled applications

Data Design, Management & Security—Provides database design services and advice on system and data security. Provides tools and services to facilitate access to WSDOT information.

Technology Integration—Maintains and communicates about current WSDOT IT standards and procedures. Provides guidance on current technologies available at WSDOT and best practices.

…in partnership with…"

- Geographic Services
- Regional Operations
- Ferries Operations
- Highways & Local Programs IT
- Communications Office
- Accounting IT
- Environmental & Engineering IT
- Equipment & Facilities IT
- Intelligent Transportation Systems (ITS)
- Transportation Data Office (TDO)
- Materials Lab
- Bridge Office
- Computer Aided Engineering (CAE)
- Other State and Local Agencies

Significant Challenges For OIT

Growth In Web Usage Stresses IT Infrastructure

WSDOT has optimized use of the Internet to provide key services to the public. Page views of the agency's web-based traveler information have increased by an average 15% each quarter over the last year. This overwhelming response from the public has created additional stress on WSDOT's aging IT infrastructure.
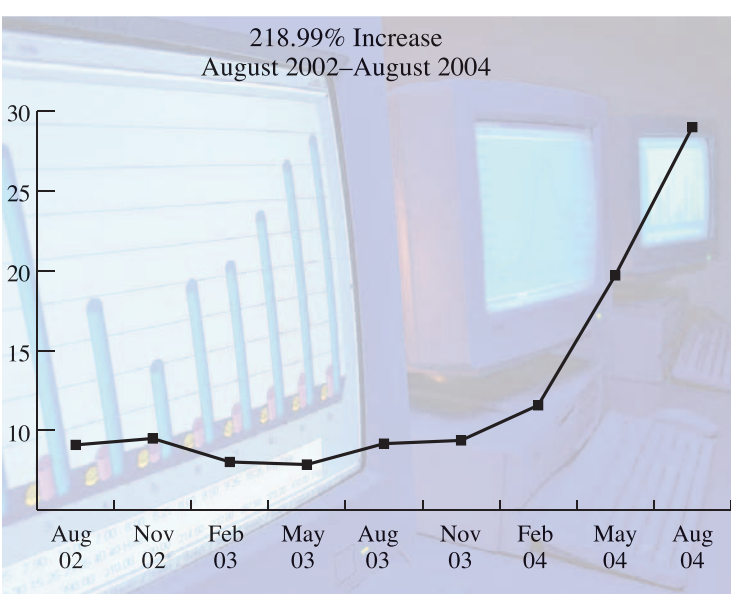
All WSDOT Websites

Page Views In Millions

103.33% Increase
August 2002–August 2004
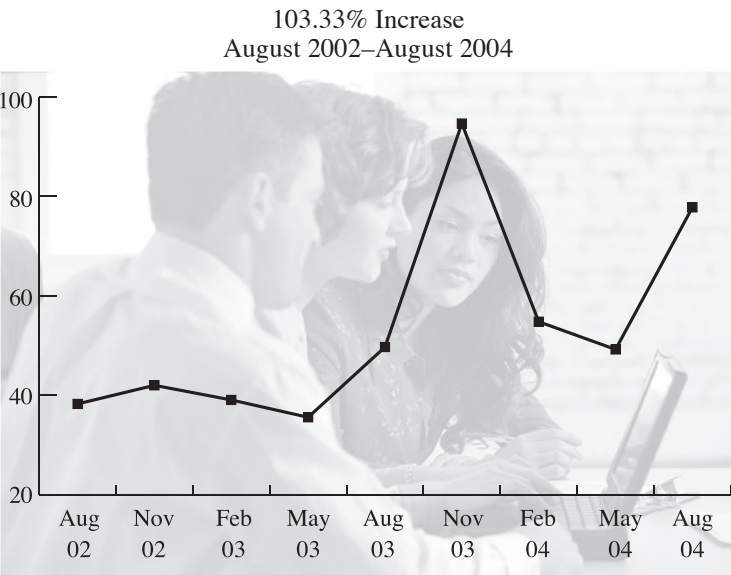
Accountability Websites

Page Views In Thousands

218.99% Increase
August 2002–August 2004

10-Year Growth In IT Services

	93-95	03-05
PC's Supported	649	5800 (900 off network)
File/Data Servers	1	546
Engineering Software	75 workstations 150 CADD Users	250 (Concurrent Users) 200 Microstation Users
Computer Applications	120 Mainframe	46 Mainframe 116 Client Server 73 Web/Workstation
Databases	250 Mainframe	169 Mainframe 197 SQL 49 Filemaker 240 GIS 14 SQL Data Marts
Web Usage	1 Connection through DIS	4900 Connections 67M Page Views/mo 276 Traffic Cameras

WSDOT IT Infrastructure Expenditures
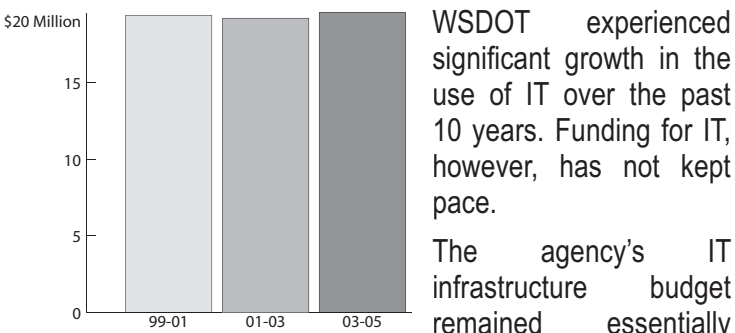
WSDOT experienced significant growth in the use of IT over the past 10 years. Funding for IT, however, has not kept pace.

The agency's IT infrastructure budget remained essentially flat over the last three biennia, preventing timely replacement of critical components.

External Support for WSDOT's Critical Application Assessment

Review of WSDOT's Use of Performance Measurement (TPAB)

"It is recommended that WSDOT's Critical Systems Assessment study is funded. As part of this study, WSDOT should define a plan that will make the recording and reporting of performance data timely and efficient."

JLARC Overview of WSDOT Capital Project Management

"WSDOT should conduct an assessment of the effectiveness of current information systems options addressing any deficiencies.

The assessment should be focused on identifying key capital business and analytical processes and demonstrating to what extent they are supported by automated systems."